

# Philips' smart card chip for e-government smart passport projects is industry's first to achieve highest security certifi

**Royal Philips** Electronics today announced that its chip solution for e-government applications received the world's first Common Criteria (CC) EAL5+ certification for a triple interface smart card controller. Philips' chip solution meets the high security and memory requirements of major e-government projects currently under way, including smart passport projects in the United States, Australia, Germany and the United Kingdom. As a result, travelers can soon expect increased convenience and safety at airports.

As the amount of business and holiday travel increases, security continues to be a top concern for governments worldwide. When fully implemented, smart passport solutions help to reduce fraud and forgery of travel documents, which means enhanced security for travelers. In addition, Philips' solution is also ideal for implementation in bank cards for use in financial transactions.

The 72Kbyte EEPROM memory, high-security chip exceeds the specifications for smart passports set by the International Civil Aviation Organization (ICAO) and is currently being used by SDU Identification in the volume field trial of the new ICAO-compliant Netherlands Smart Passport.

Presented by the German Federal Office for Information Security - Bundesamt für Sicherheit in der Informationstechnik (BSI) - and based on third-party evaluation, the CC EAL5+ certification demonstrates Philips' leading role in the development of advanced, secure smart card chip solutions with its SmartMX family. Philips is working in close cooperation with government and industry standards bodies in the development of secure identification technologies to meet current and future security needs.

"With developments in smart passport technology driven by the United States Visa Waiver initiative, the industry urgently needs recognized and reliable platforms such as the BSI's Common Criteria EAL 5+ for evaluating hardware solutions," said Anoop Ubhey, senior smart card analyst, Frost & Sullivan. "With this certification, Philips further confirms their understanding of industry needs. Their identification technology has consistently set the industry benchmark, and continues to do so with this new certificate for its SmartMX smart card IC family."

"The certification of this solution confirms Philips unique leadership in both chip security and contactless technology for smart cards in a broad variety of applications, including smart passports and bank cards," commented Sour Chhor, general manager of Contactless and Embedded Security, Identification at Philips Semiconductors. "With its large memory, sophisticated low-power handshaking technology and high resilience, the chip is the first with a triple interface to be certified, and the first to be in volume production."

The SmartMX 72kbyte EEPROM triple interface controller is the first to have contact, (ISO/IEC 7816 and USB) and contactless interfaces (ISO/IEC 14443 A) certified for use in a wide range of demanding applications including smart passports, health and bank cards. Already in volume production, the product offers a USB 2.0 LS interface to drive end-user acceptance enabling easy to use digital signature functionality and secure physical network access. The chip can be integrated into smart cards or other form factors, such as dongles, which can be directly connected to a PC's USB interface.

The P5CT072 chip provides an additional 1Kbyte EEPROM for each implemented 8Kbyte as a standard industry practice. This ensures that the specified size of EEPROM is available for use by applications,

unimpeded by the operating system, which normally requires a memory overhead. Therefore the 72Kbyte product assures at least 64Kbyte EEPROM of fully usable application memory.

Philips' SmartMX smart card controller family, including the industry's only 72Kbyte EEPROM triple interface smart card IC, uses a unique handshaking technology, which allows a significant reduction in power consumption. Philips has further increased the reliability of their technology, extending data retention time from the industry standard of 10 years to 20, and increasing the number of write cycles to 500,000. The SmartMX family also offers linear memory addressing, a dedicated instruction set and state of the art security sensors recognizing customer need for efficiently programmable devices for a faster time to market.

*This document is subject to copyright. Apart from any fair dealing for the purpose of private study, research, no part may be reproduced without the written permission. The content is provided for information purposes only.*